RESPONSE

Claims 1, 3, 5-7, 10, and12 remain in the present application. The claims stand as rejected under 35 U.S.C. §103(a) over Sichling et al., US patent 4,379,226. Claim 1 is also rejected under 35 U.S.C. §112, second paragraph, as being incomplete, and claims 1 and 5 are rejected under 35 U.S.C. §112, second paragraph as being indefinite.

Rejection of claim 1 as incomplete

Claim 1 is above amended to add elements of measuring collected data and monitoring the collected data. The Examiner had rejected the claims as omitting essential steps. In particular, steps directed to measuring and monitoring were said to be missing. The above amendment specifically adds these steps. This objection is therefore respectfully traversed, and withdrawal thereof is respectfully requested.

Rejection of claims 1 and 5 as indefinate

Claims 1 and 5 are said to be indefinite for failing to particularly point out and distinctly claim the subject mater which applicant regards as the invention. Examiner says that claim 1 is directed to a process for measuring and monitoring motor systems, and that claim 1 recites a structure wherein elements are used to collect and transfer data. The Examiner further says that "it is unclear whether the recited structure influences the type of "data" collected (i.e. is data collected from the motor system recited in claim 1, line 3). Examiner further notes that it is unclear how the collected data is transferred to a data collection station, as there is no recited element with the functionality of data transfer." The above amendment connects the elements of the claim 1 more clearly and Applicant believes that the present claims, particularly when read in light of the specification, particularly point out and distinctly claim the subject matter which applicant regards as the invention. Although the rejection is directed to Claim 1 and Claim 5, the basis for the rejection all relate only to claim 1. Applicant believes that claims 5, as it presently stands, is clear. The rejection is therefore respectfully traversed, and withdrawal thereof is respectfully requested.

R:\LEGAL\DSC\TH1354.AMD

Rejection under 35 USC §103(a)

The claims stand as rejected under 35 U.S.C. §103(a) over Sichling et al. (US Patent no. 4,379,226). Sichling et al. disclose combining a fiber optical cable in electrical insulation around a wire and use of the fiber optical cable to transmit data. The Examiner indicates that Sichling et al. teaches incorporation of a sensor within motor systems such as in automotive applications. Applicant respectfully disagrees. What is said by Sichling et al. is that his invention can be used in automotive applications. He does not teach or suggest use of fiber optical cables in the engines or any electrical motors within an automobile. Elements including incorporation of a fiber optical cable with a stator or an armature wire is not taught or suggested by Sichling et al., or the other references of record. Thus, a prima facie basis for the rejection of the present claims is not presented by Sichling et al. This rejection is therefore respectfully traversed and withdrawal thereof is respectfully requested.

Wrapping an optical fiber around wires of a motor, or embedding an optical fiber in electrical insulating material is not suggested by Sichling et al., or the other references of record, and this arrangement is effective to monitor internal conditions of electrical motors. As stated on page 2 of the specification:

> --This invention solves the problem of monitoring internal electrical motor parameters. For example it is often useful from both a design and development prospective as well for operational control, safety, and extending motor life, to monitor certain internal parameters of an electric motor. This invention also allows parameters to be measured along multiple nodes along the axis of the motor as well as at different radial positions in the motor. These variables give useful insight to heat rise, heat flux, hot spots, and the subsequent heat profiles in different motor designs, as well as offering an intimate knowledge of the motors internal conditions of pressure and vibration, and stator movement under during actual running and operation of the electrical system.
>
> Electrical motor performance and life cycle are functions of these internal conditions, which the invention monitors. Therefore, this invention's ability to monitor these conditions in electrical motors allows for improvements and or changes in design and

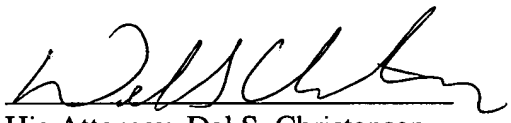
operations to be made and then confirmed via the internal monitoring offered by this invention.--

These important advantages of the present invention are not shared the references of record and provide objective evidence of non-obviousness that would over come a prima facie basis for an obviousness rejection if one were presented.

The rejections each being traversed, passage of the application to issuance is respectfully requested.

Respectfully submitted,

David R. Smith

By: 

His Attorney, Del S. Christensen
Registration No. 33,482
(713) 241-3997

P. O. Box 2463
Houston, TX 77252-2463

R:\LEGAL\DSC\TH1354.AMD